



SEQUENCE LISTING

<110> Corrado FOGHER  
<120> Food flours with specific technological characteristics and low allergenicity  
<130> 4161-12 / BX1898R  
<140> US 10/534,742  
<141> 2005-05-12  
<150> PCT/IB2003/005092  
<151> 2003-11-12  
<150> IT BO2002A000714  
<151> 2002-11-13  
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<211> 830  
<212> PRT  
<213> Wheat  
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Met Thr Lys Arg Leu Val Leu Phe Ala Ala Val Val Val Ala Leu Val  
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Ala Leu Thr Ala Ala Glu Gly Glu Ala Ser Gly Gln Leu Gln Cys Glu  
20 25 30  
Arg Glu Leu Gln Glu His Ser Leu Lys Ala Cys Arg Gln Val Val Asp  
35 40 45  
Gln Gln Leu Arg Asp Val Ser Pro Glu Cys Gln Pro Val Gly Gly Gly  
50 55 60  
Pro Val Ala Arg Gln Tyr Glu Gln Gln Val Val Val Pro Pro Lys Gly  
65 70 75 80  
Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln Leu Gln Gln  
85 90 95  
Ser Ile Leu Trp Gly Ile Pro Ala Leu Leu Arg Arg Tyr Tyr Leu Ser  
100 105 110  
Val Thr Ser Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln Ala Ser Ser  
115 120 125  
Gln Arg Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Glu Tyr  
130 135 140

Tyr Leu Thr Ser Pro Gln Gln Ser Gly Gln Trp Gln Gln Pro Gly Gln  
 145 150 155 160  
 Gly Gln Ala Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Glu  
 165 170 175  
 Gln Pro Gly Tyr Tyr Pro Thr Ser Trp Gln Pro Glu Gln Leu Gln  
 180 185 190  
 Gln Pro Thr Gln Gly Gln Gln Arg Gln Gln Pro Gly Gln Gly Gln Gln  
 195 200 205  
 Leu Arg Gln Gly Gln Gln Gly Gln Gln Ser Gly Gln Gly Gln Pro Arg  
 210 215 220  
 Tyr Tyr Pro Thr Ser Ser Gln Gln Pro Gly Gln Leu Gln Gln Leu Ala  
 225 230 235 240  
 Gln Gly Gln Gln Gly Gln Gln Pro Glu Arg Gly Gln Gln Gly Gln Gln  
 245 250 255  
 Ser Gly Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln Gly Gln Gln Pro  
 260 265 270  
 Gly Gln Lys Gln Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Ile  
 275 280 285  
 Ser Pro Gln Gln Leu Gly Gln Gly Gln Gln Ser Gly Gln Gly Gln Leu  
 290 295 300  
 Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Ser Gly  
 305 310 315 320  
 Tyr Tyr Pro Thr Ser Ala Gln Gln Pro Gly Gln Leu Gln Gln Ser Thr  
 325 330 335  
 Gln Glu Gln Gln Leu Gly Gln Glu Gln Gln Asp Gln Gln Ser Gly Gln  
 340 345 350  
 Gly Arg Gln Gly Gln Gln Ser Gly Gln Arg Gln Gln Asp Gln Gln Ser  
 355 360 365  
 Gly Gln Gly Gln Gln Pro Gly Gln Arg Gln Pro Gly Tyr Tyr Ser Thr  
 370 375 380  
 Ser Pro Gln Gln Leu Gly Gln Gly Gln Pro Arg Tyr Tyr Pro Thr Ser  
 385 390 395 400  
 Pro Gln Gln Pro Gly Gln Glu Gln Gln Pro Arg Gln Leu Gln Gln Pro  
 405 410 415  
 Glu Gln Gly Gln Gln Gly Gln Gln Pro Glu Gln Gly Gln Gln Gly Gln  
 420 425 430  
 Gln Pro Gly Gln Gly Glu Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln  
 435 440 445

Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro  
 450 455 460  
 Gln Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln  
 465 470 475 480  
 Gln Ser Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln  
 485 490 495  
 Glu Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro  
 500 505 510  
 Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr  
 515 520 525  
 Ser Pro Gln Gln Ser Gly Gln Glu Gln Gln Leu Glu Gln Trp Gln Gln  
 530 535 540  
 Ser Gly Gln Gly Gln Pro Gly His Tyr Pro Thr Ser Pro Leu Gln Pro  
 545 550 555 560  
 Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ile Gly  
 565 570 575  
 Gln Gly Gln Gln Pro Gly Gln Leu Gln Gln Pro Thr Gln Gly Gln Gln  
 580 585 590  
 Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly  
 595 600 605  
 Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln  
 610 615 620  
 Pro Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly Gln Gly Gln Gln  
 625 630 635 640  
 Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Leu Pro Gly Tyr Tyr Pro  
 645 650 655  
 Thr Ser Ser Leu Gln Pro Glu Gln Gly Gln Gln Gly Tyr Tyr Pro Thr  
 660 665 670  
 Ser Gln Gln Gln Pro Gly Gln Gly Pro Gln Pro Gly Gln Trp Gln Gln  
 675 680 685  
 Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser  
 690 695 700  
 Gly Gln Gly Gln Gln Pro Gly Gln Trp Leu Gln Pro Gly Gln Trp Leu  
 705 710 715 720  
 Gln Ser Gly Tyr Tyr Leu Thr Ser Pro Gln Gln Leu Gly Gln Gly Gln  
 725 730 735  
 Gln Pro Arg Gln Trp Leu Gln Pro Arg Gln Gly Gln Gln Gly Tyr Tyr  
 740 745 750

Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Gln Leu Gly Gln Gly  
 755 760 765  
 Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln  
 770 775 780  
 Gln Gly Tyr Asp Ser Pro Tyr His Val Ser Ala Glu His Gln Ala Ala  
 785 790 795 800  
 Ser Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro Ala  
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 Met Cys Arg Leu Glu Gly Gly Asp Ala Leu Leu Ala Ser Gln  
 820 825 830

<210> 2  
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 <212> PRT  
 <213> Wheat

<400> 2

Met Thr Lys Arg Leu Val Leu Phe Ala Ala Val Val Val Ala Leu Val  
 1 5 10 15  
 Ala Leu Thr Ala Ala Glu Gly Glu Ala Ser Gly Gln Leu Gln Cys Glu  
 20 25 30  
 Arg Glu Leu Gln Glu His Ser Leu Lys Ala Cys Arg Gln Val Val Asp  
 35 40 45  
 Gln Gln Leu Arg Asp Val Ser Pro Glu Cys Gln Pro Val Gly Gly Gly  
 50 55 60  
 Pro Val Ala Arg Gln Tyr Glu Gln Gln Val Val Val Pro Pro Lys Gly  
 65 70 75 80  
 Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln Leu Gln Gln  
 85 90 95  
 Ser Ile Leu Trp Gly Ile Pro Ala Leu Leu Arg Arg Tyr Tyr Leu Ser  
 100 105 110  
 Val Thr Ser Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln Ala Ser Ser  
 115 120 125  
 Gln Arg Pro Gly Gln Gly Gln Gln Glu Tyr Tyr Leu Thr Ser Pro Gln  
 130 135 140  
 Gln Ser Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Ser Gly Tyr Tyr  
 145 150 155 160  
 Pro Thr Ser Pro Gln Gln Ser Gly Gln Lys Gln Pro Gly Tyr Tyr Pro  
 165 170 175

Thr	Ser	Pro	Trp	Gln	Pro	Glu	Gln	Leu	Gln	Gln	Pro	Thr	Gln	Gly	Gln	
			180					185					190			
Gln	Arg	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Leu	Arg	Gln	Gly	Gln	Gln	
			195					200					205			
Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Pro	Arg	Tyr	Tyr	Pro	Thr	Ser	Ser	
			210					215				220				
Gln	Gln	Pro	Gly	Gln	Leu	Gln	Gln	Leu	Ala	Gln	Gly	Gln	Gln	Gly	Gln	
			225					230				235				240
Gln	Pro	Glu	Arg	Gly	Gln	Gln	Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	
				245						250						255
Leu	Gly	Gln	Gly	Gln	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Lys	Gln	Gln	Ser	
			260						265							270
Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Ile	Ser	Pro	Gln	Gln	Leu	Gly	
			275					280						285		
Gln	Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Leu	Gly	Tyr	Tyr	Pro	Thr	Ser	
			290					295					300			
Pro	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Ser	Gly	Tyr	Tyr	Pro	Thr	Ser	Ala	
				305				310				315				320
Gln	Gln	Pro	Gly	Gln	Leu	Gln	Gln	Ser	Thr	Gln	Glu	Gln	Gln	Leu	Gly	
				325					330							335
Gln	Glu	Gln	Gln	Asp	Gln	Gln	Ser	Gly	Gln	Gly	Arg	Gln	Gly	Gln	Gln	
				340					345					350		
Ser	Gly	Gln	Arg	Gln	Gln	Asp	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Pro	
			355						360				365			
Gly	Gln	Arg	Gln	Pro	Gly	Tyr	Tyr	Ser	Thr	Ser	Pro	Gln	Gln	Leu	Gly	
			370					375				380				
Gln	Gly	Gln	Pro	Arg	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Pro	Gly	Gln	
			385					390				395				400
Glu	Gln	Gln	Pro	Arg	Gln	Leu	Gln	Gln	Pro	Glu	Gln	Gly	Gln	Gln	Gly	
				405					410							415
Gln	Gln	Pro	Glu	Gln	Gly	Gln	Gln	Gly	Gln	Gln	Gln	Arg	Gln	Gly	Glu	
				420					425					430		
Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	Gln	Gln	Pro	Gly	Gln	
				435					440					445		
Gly	Gln	Pro	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Gly	
			450					455				460				
Gln	Pro	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Leu	Gln	
				465				470				475				480

Gln	Pro	Ala	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Glu	Gln	Gln	Gly	Gln	Gln		
				485					490					495			
Pro	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Pro	Gly	Tyr	Tyr	Pro		
			500					505					510				
Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Glu	Gln	Gln	Leu	Glu	Gln	Trp	Gln		
		515					520					525					
Gln	Ser	Gly	Gln	Gly	Gln	Pro	Gly	His	Tyr	Pro	Thr	Ser	Pro	Leu	Gln		
	530					535					540						
Pro	Gly	Gln	Gly	Gln	Pro	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ile		
545					550					555					560		
Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Leu	Gln	Gln	Pro	Thr	Gln	Gly	Gln		
			565					570						575			
Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	Gln	Gln	Pro	Gly	Glu		
			580					585					590				
Gly	Gln	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly		
		595					600					605					
Gln	Pro	Gly	Tyr	Tyr	Pro	Thr	Ser	Leu	Gln	Gln	Ser	Gly	Gln	Gly	Gln		
	610					615					620						
Gln	Pro	Gly	Gln	Trp	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Pro	Gly	Tyr	Tyr		
625					630					635					640		
Pro	Thr	Ser	Ser	Leu	Gln	Pro	Glu	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro		
				645					650						655		
Thr	Ser	Gln	Gln	Gln	Pro	Gly	Gln	Gly	Pro	Gln	Pro	Gly	Gln	Trp	Gln		
		660						665						670			
Gln	Ser	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln		
		675					680					685					
Ser	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Trp	Leu	Gln	Pro	Gly	Gln	Trp		
	690					695					700						
Leu	Gln	Ser	Gly	Tyr	Tyr	Leu	Thr	Ser	Pro	Gln	Gln	Leu	Gly	Gln	Gly		
705					710					715					720		
Gln	Gln	Pro	Arg	Gln	Trp	Leu	Gln	Pro	Arg	Gln	Gly	Gln	Gln	Gly	Tyr		
				725					730					735			
Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Leu	Gly	Gln		
			740					745					750				
Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Gly		
		755					760					765					
Gln	Gln	Gly	Tyr	Asp	Ser	Pro	Tyr	His	Val	Ser	Ala	Glu	His	Gln	Ala		
	770					775					780						

Ala Ser Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro  
785 790 795 800

Ala Met Cys Arg Leu Glu Gly Gly Asp Ala Leu Leu Ala Ser Gln  
805 810 815

<210> 3  
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<212> PRT  
<213> Wheat

<400> 3

Met Ala Lys Arg Leu Val Leu Phe Val Ala Val Val Val Ala Leu Val  
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Ala Leu Thr Val Ala Glu Gly Glu Ala Ser Glu Gln Leu Gln Cys Glu  
20 25 30

Arg Glu Leu Gln Glu Leu Gln Glu Arg Glu Leu Lys Ala Cys Gln Gln  
35 40 45

Val Met Asp Gln Gln Leu Arg Asp Ile Ser Pro Glu Cys His Pro Val  
50 55 60

Val Val Ser Pro Val Ala Gly Gln Tyr Glu Gln Gln Ile Val Val Pro  
65 70 75 80

Pro Lys Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln  
85 90 95

Leu Gln Gln Arg Ile Phe Trp Gly Ile Pro Ala Leu Leu Lys Arg Tyr  
100 105 110

Tyr Pro Ser Val Thr Cys Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln  
115 120 125

Ala Ser Pro Gln Arg Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln  
130 135 140

Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Trp Gln Gln  
145 150 155 160

Pro Glu Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro  
165 170 175

Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln Gly Gln  
180 185 190

Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser  
195 200 205

Ser Gln Leu Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln  
210 215 220

Gly Gln Gln Pro Gly Gln Ala Gln Gln Gly Gln Gln Pro Gly Gln Gly  
225 230 235 240

Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln  
 245 250 255  
 Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln  
 260 265 270  
 Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly Gln Gly Gln Pro Gly  
 275 280 285  
 Tyr Tyr Pro Thr Ser Leu Gln Gln Leu Gly Gln Gly Gln Ser Gly Tyr  
 290 295 300  
 Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln  
 305 310 315 320  
 Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly  
 325 330 335  
 Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln  
 340 345 350  
 Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln  
 355 360 365  
 Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Ser Gln Gln Pro  
 370 375 380  
 Thr Gln Ser Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Val Gly  
 385 390 395 400  
 Gln Gly Gln Gln Ala Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln  
 405 410 415  
 Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly  
 420 425 430  
 Gln Pro Gly Tyr Tyr Leu Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln  
 435 440 445  
 Gln Pro Gly Gln Leu Gln Gln Ser Ala Gln Gly Gln Lys Gly Gln Gln  
 450 455 460  
 Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro  
 465 470 475 480  
 Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr  
 485 490 495  
 Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Gln Pro Gly Gln  
 500 505 510  
 Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro  
 515 520 525  
 Leu Gln Pro Gly Gln Gly Gln Pro Gly Tyr Asp Pro Thr Ser Pro Gln  
 530 535 540



Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln  
 545 550 555 560  
 Gly Gln Gln Gly Gln Gln Leu Ala Gln Gly Gln Gln Gly Gln Gln Pro  
 565 570 575  
 Ala Gln Val Gln Gln Gly Gln Gln Pro Ala Gln Gly Gln Gln Gly Gln  
 580 585 590  
 Gln Leu Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln  
 595 600 605  
 Gly Gln Gln Pro Ala Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly  
 610 615 620  
 Gln His Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly  
 625 630 635 640  
 Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Trp Tyr Tyr Pro Thr Ser  
 645 650 655  
 Pro Gln Glu Ser Gly Gln Gly Gln Gln Pro Gly Gln Trp Gln Gln Pro  
 660 665 670  
 Gly Gln Gly Gln Pro Gly Tyr Tyr Leu Thr Phe Ser Val Ala Ala Arg  
 675 680 685  
 Thr Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln  
 690 695 700  
 Gly Gln Gln Pro Gly Gln Trp Gln Gln Ser Gly Gln Gly Gln His Trp  
 705 710 715 720  
 Tyr Tyr Pro Thr Ser Pro Lys Leu Ser Gly Gln Gly Gln Arg Pro Gly  
 725 730 735  
 Gln Trp Leu Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser  
 740 745 750  
 Pro Gln Gln Pro Pro Gln Gly Gln Gln Leu Gly Gln Trp Leu Gln Pro  
 755 760 765  
 Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Thr Gly  
 770 775 780  
 Gln Gly Gln Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Ser Ser Tyr  
 785 790 795 800  
 His Val Ser Val Glu His Gln Ala Ala Ser Leu Lys Val Ala Lys Ala  
 805 810 815  
 Gln Gln Leu Ala Ala Gln Leu Pro Ala Met Cys Arg Leu Glu Gly Gly  
 820 825 830  
 Asp Ala Leu Ser Ala Ser Gln  
 835

<210> 4  
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 <212> PRT  
 <213> Wheat

<400> 4

Met Ala Lys Arg Leu Val Leu Phe Val Ala Val Val Val Ala Leu Val  
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Ala Leu Thr Val Ala Glu Gly Glu Ala Ser Glu Gln Leu Gln Cys Glu  
 20 25 30

Arg Glu Leu Gln Glu Leu Gln Glu Arg Glu Leu Lys Ala Cys Gln Gln  
 35 40 45

Val Met Asp Gln Gln Leu Arg Asp Ile Ser Pro Glu Cys His Pro Val  
 50 55 60

Val Val Ser Pro Val Ala Gly Gln Tyr Glu Gln Gln Ile Val Val Pro  
 65 70 75 80

Lys Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Pro Gln Gln Leu  
 85 90 95

Gln Gln Arg Ile Phe Trp Gly Ile Pro Ala Leu Leu Lys Arg Tyr Tyr  
 100 105 110

Pro Ser Val Thr Ser Pro Gln Gln Val Ser Tyr Tyr Pro Gly Gln Ala  
 115 120 125

Ser Pro Gln Arg Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln  
 130 135 140

Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro  
 145 150 155 160

Gly Gln Trp Gln Gln Pro Glu Gln Gly Gln Pro Gly Tyr Tyr Pro Thr  
 165 170 175

Ser Pro Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln  
 180 185 190

Pro Gly Gln Gly Gln Gln Gly Arg Gln Pro Gly Gln Gly Gln Pro Gly  
 195 200 205

Tyr Tyr Pro Thr Ser Ser Gln Leu Gln Pro Gly Gln Leu Gln Gln Pro  
 210 215 220

Ala Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln  
 225 230 235 240

Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln  
 245 250 255

Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Leu  
 260 265 270  
 Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Ser Gly  
 275 280 285  
 Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Leu Gly Gln  
 290 295 300  
 Gly Gln Ser Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly  
 305 310 315 320  
 Gln Gln Pro Gly Gln Leu Gln Gln Pro Ala Gln Gly Gln Gln Pro Glu  
 325 330 335  
 Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln  
 340 345 350  
 Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro  
 355 360 365  
 Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr  
 370 375 380  
 Ser Ser Gln Gln Pro Thr Gln Ser Gln Gln Pro Gly Gln Gly Gln Gln  
 385 390 395 400  
 Gly Gln Gln Val Gly Gln Gly Gln Gln Ala Gln Gln Pro Gly Gln Gly  
 405 410 415  
 Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Leu  
 420 425 430  
 Gln Ser Gly Gln Gly Gln Pro Gly Tyr Tyr Leu Thr Ser Pro Gln Gln  
 435 440 445  
 Ser Gly Gln Gly Gln Gln Pro Gly Gln Leu Gln Gln Ser Ala Gln Gly  
 450 455 460  
 Gln Lys Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln  
 465 470 475 480  
 Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln  
 485 490 495  
 Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly  
 500 505 510  
 Gln Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr  
 515 520 525  
 Tyr Pro Thr Ser Pro Leu Gln Pro Gly Gln Gly Gln Pro Gly Tyr Asp  
 530 535 540  
 Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Leu  
 545 550 555 560

Gln Gln Pro Ala Gln Gly Gln Gln Gly Gln Gln Leu Ala Gln Gly Gln  
 565 570 575  
 Gln Gly Gln Gln Pro Ala Gln Val Gln Gln Gly Gln Gln Pro Ala Gln  
 580 585 590  
 Gly Gln Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln Gly Gln Gln Pro  
 595 600 605  
 Gly Gln Gly Gln Gln Pro Ala Gln Gly Gln Gln Gly Gln Gln Pro Gly  
 610 615 620  
 Gln Gly Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln  
 625 630 635 640  
 Gly Gln Pro Trp Tyr Tyr Pro Thr Ser Pro Gln Glu Ser Gly Gln Gly  
 645 650 655  
 Gln Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Trp Gln Gln Pro Gly  
 660 665 670  
 Gln Gly Gln Pro Gly Tyr Tyr Leu Thr Ser Pro Leu Gln Leu Gly Gln  
 675 680 685  
 Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly  
 690 695 700  
 Gln Gln Pro Gly Gln Trp Gln Gln Ser Gly Gln Gly Gln His Gly Tyr  
 705 710 715 720  
 Tyr Pro Thr Ser Pro Gln Leu Ser Gly Gln Gly Gln Arg Pro Gly Gln  
 725 730 735  
 Trp Leu Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro  
 740 745 750  
 Gln Gln Ser Gly Gln Gly Gln Gln Leu Gly Gln Trp Leu Gln Pro Gly  
 755 760 765  
 Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Thr Gly Gln  
 770 775 780  
 Gly Gln Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Ser Ser Tyr His  
 785 790 795 800  
 Val Ser Val Glu His Gln Ala Ala Ser Leu Lys Val Ala Lys Ala Gln  
 805 810 815  
 Gln Leu Ala Ala Gln Leu Pro Ala Met Cys Arg Leu Glu Gly Gly Asp  
 820 825 830  
 Ala Leu Ser Ala Ser Gln  
 835

<210> 5  
 <211> 789

<212> PRT  
<213> Wheat

<400> 5

Met	Ala	Lys	Arg	Leu	Val	Leu	Phe	Ala	Ala	Val	Val	Val	Ala	Leu	Val	
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Ala	Leu	Thr	Ala	Ala	Glu	Gly	Glu	Ala	Ser	Gly	Gln	Leu	Gln	Cys	Glu	
			20					25					30			
His	Glu	Leu	Glu	Ala	Cys	Gln	Gln	Val	Val	Asp	Gln	Gln	Leu	Arg	Asp	
		35					40					45				
Val	Ser	Pro	Gly	Cys	Arg	Pro	Ile	Thr	Val	Ser	Pro	Gly	Thr	Arg	Gln	
	50					55					60					
Tyr	Glu	Gln	Gln	Pro	Val	Val	Pro	Ser	Lys	Ala	Gly	Ser	Phe	Tyr	Pro	
65					70					75					80	
Ser	Glu	Thr	Thr	Pro	Ser	Gln	Gln	Leu	Gln	Gln	Met	Ile	Phe	Trp	Gly	
				85					90						95	
Ile	Pro	Ala	Leu	Leu	Arg	Arg	Tyr	Tyr	Pro	Ser	Val	Thr	Ser	Ser	Gln	
			100					105						110		
Gln	Gly	Ser	Tyr	Tyr	Pro	Gly	Gln	Ala	Ser	Pro	Gln	Gln	Ser	Gly	Gln	
		115					120					125				
Gly	Gln	Gln	Pro	Gly	Gln	Glu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Asp	
	130					135					140					
Gln	Gln	Pro	Gly	Gln	Arg	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	
145					150					155					160	
Gln	Pro	Gly	Gln	Gly	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Pro	Gly	Tyr	Tyr	
			165					170						175		
Pro	Thr	Ser	Gln	Gln	Pro	Gly	Gln	Lys	Gln	Gln	Ala	Gly	Gln	Gly	Gln	
			180					185					190			
Gln	Ser	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	
		195					200					205				
Ser	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Pro	Gly	Tyr	Tyr	Pro	
	210					215					220					
Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Trp	Gln	Gln	Pro	Gly	Gln	Gly	Gln	
225					230					235					240	
Gln	Pro	Gly	Gln	Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Gly	Gln	Gln	
			245						250					255		
Pro	Gly	Gln	Gly	Gln	Arg	Pro	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	
			260					265					270			

Ile	Ser	Pro	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	275	280	285
Pro	Gly	Tyr	Tyr	Pro	Thr	Ser	Leu	Arg	Gln	Pro	Gly	Gln	Trp	Gln	Gln	290	295	300
Pro	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	Gln	Gln	Pro	305	310	315
Gly	Gln	Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	325	330	335
Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Pro	340	345	350
Gly	Tyr	Tyr	Pro	Thr	Ser	Gln	Gln	Ser	Glu	Gln	Gly	Gln	Gln	Pro	Gly	355	360	365
Gln	Gly	Lys	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	370	375	380
Pro	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Pro	Gly	385	390	395
Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Ser	Gly	405	410	415
Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Ser	Gly	Gln	420	425	430
Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Ser	Gly	Tyr	Phe	Pro	Thr	Ser	Arg	435	440	445
Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Ser	Gly	450	455	460
Gln	Gly	Gln	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Ala	Tyr	Tyr	465	470	475
Pro	Thr	Ser	Ser	Gln	Gln	Ser	Arg	Gln	Arg	Gln	Gln	Ala	Gly	Gln	Trp	485	490	495
Gln	Arg	Pro	Gly	Gln	Gly	Gln	Pro	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	500	505	510
Gln	Pro	Gly	Gln	Glu	Gln	Gln	Ser	Gly	Gln	Ala	Gln	Gln	Ser	Gly	Gln	515	520	525
Trp	Gln	Leu	Val	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Pro	Gly	Gln	Leu	530	535	540
Gln	Gln	Pro	Ala	Gln	Gly	Gln	Gln	Pro	Ala	Gln	Gly	Gln	Gln	Ser	Ala	545	550	555
Gln	Glu	Gln	Gln	Pro	Gly	Gln	Ala	Gln	Gln	Ser	Gly	Gln	Trp	Gln	Leu	565	570	575

Val Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Leu Gln Gln Pro  
580 585 590

Ala Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly  
595 600 605

Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln  
610 615 620

Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly  
625 630 635 640

Gln Gln Pro Gly Gln Gly Gln Gln Pro Arg Gln Gly Gln Gln Gly Tyr  
645 650 655

Tyr Pro Ile Ser Pro Gln Gln Ser Gly Gln Gly Gln Gln Pro Gly Gln  
660 665 670

Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly  
675 680 685

Gln Gln Pro Gly His Glu Gln Gln Pro Gly Gln Trp Leu Gln Pro Gly  
690 695 700

Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Ser Gln Gln Ser Gly Gln  
705 710 715 720

Gly His Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu  
725 730 735

Trp Gln Pro Gly Gln Gly Gln Gln Gly Tyr Ala Ser Pro Tyr His Val  
740 745 750

Ser Ala Glu Tyr Gln Ala Ala Arg Leu Lys Val Ala Lys Ala Gln Gln  
755 760 765

Leu Ala Ala Gln Leu Pro Ala Met Cys Arg Leu Glu Gly Ser Asp Ala  
770 775 780

Leu Ser Thr Arg Gln  
785

<210> 6  
<211> 660  
<212> PRT  
<213> Wheat

<400> 6

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Ile Ala Leu Val  
1 5 10 15

Ala Leu Thr Thr Ala Glu Gly Glu Ala Ser Arg Gln Leu Gln Cys Glu  
20 25 30





Tyr Pro Ala Ser Gln Gln Glu Pro Gly Gln Gly Gln Gln Gly Gln Ile  
 340 345 350  
 Pro Ala Ser Gln Gln Gln Pro Gly Gln Gly Gln Gln Gly His Tyr Pro  
 355 360 365  
 Ala Ser Leu Gln Gln Pro Gly Gln Gln Gly His Tyr Pro Thr Ser Leu  
 370 375 380  
 Gln Gln Leu Gly Gln Gly Gln Gln Ile Gly Gln Pro Gly Gln Lys Gln  
 385 390 395 400  
 Gln Pro Gly Gln Gly Gln Gln Thr Gly Gln Gly Gln Gln Pro Glu Gln  
 405 410 415  
 Glu Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu  
 420 425 430  
 Gln Gln Pro Gly Gln Gly Gln Gln Gln Gly Gln Gly Gln Gln Gly Tyr  
 435 440 445  
 Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Gly His Tyr  
 450 455 460  
 Pro Ala Ser Leu Gln Gln Pro Gly Gln Gly Gln Gly Gln Pro Gly Gln  
 465 470 475 480  
 Arg Gln Gln Pro Gly Gln Gly Gln His Pro Glu Gln Gly Gln Gln Pro  
 485 490 495  
 Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly  
 500 505 510  
 Gln Gly Gln Gln Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser  
 515 520 525  
 Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly  
 530 535 540  
 His Cys Pro Met Ser Pro Gln Gln Thr Gly Gln Ala Gln Gln Leu Gly  
 545 550 555 560  
 Gln Gly Gln Gln Ile Gly Gln Val Gln Gln Pro Gly Gln Gly Gln Gln  
 565 570 575  
 Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Ser  
 580 585 590  
 Gly Gln Gly Gln Gln Ser Gly Gln Gly His Gln Pro Gly Gln Gly Gln  
 595 600 605  
 Gln Ser Gly Gln Glu Lys Gln Gly Tyr Asp Ser Pro Tyr His Val Ser  
 610 615 620  
 Ala Glu Gln Gln Ala Ala Ser Pro Met Val Ala Lys Ala Gln Gln Pro  
 625 630 635 640

Ala Thr Gln Leu Pro Thr Val Cys Arg Met Glu Gly Gly Asp Ala Leu  
645 650 655

Ser Ala Ser Gln  
660

<210> 7  
<211> 648  
<212> PRT  
<213> Wheat

<400> 7

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Ile Ala Leu Val  
1 5 10 15

Ala Leu Thr Thr Ala Glu Gly Glu Ala Ser Arg Gln Leu Gln Cys Glu  
20 25 30

Arg Glu Leu Gln Glu Ser Ser Leu Glu Ala Cys Arg Gln Val Val Asp  
35 40 45

Gln Gln Leu Ala Gly Arg Leu Pro Trp Ser Thr Gly Leu Gln Met Arg  
50 55 60

Cys Cys Gln Gln Leu Arg Asp Val Ser Ala Lys Cys Arg Ser Val Ala  
65 70 75 80

Val Ser Gln Val Ala Arg Gln Tyr Glu Gln Thr Val Val Pro Pro Lys  
85 90 95

Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Leu Gln Gln Leu Gln  
100 105 110

Gln Gly Ile Phe Trp Gly Thr Ser Ser Gln Thr Val Gln Gly Tyr Tyr  
115 120 125

Pro Gly Val Thr Ser Pro Arg Gln Gly Ser Tyr Tyr Pro Gly Gln Ala  
130 135 140

Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Lys Trp Gln Glu  
145 150 155 160

Pro Gly Gln Gly Gln Gln Trp Tyr Tyr Pro Thr Ser Leu Gln Gln Pro  
165 170 175

Gly Gln Gly Gln Gln Ile Gly Lys Gly Gln Gln Gly Tyr Tyr Pro Thr  
180 185 190

Ser Leu Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser  
195 200 205

Leu Gln His Thr Gly Gln Arg Gln Gln Pro Val Gln Gly Gln Gln Pro  
210 215 220

Glu	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Trp	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	225	230	235	240
Ser	Pro	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Gln	Pro	Arg	Gln	Trp	Gln	Gln	245	250	255	
Ser	Gly	Gln	Gly	Gln	Gln	Gly	His	Tyr	Pro	Thr	Ser	Leu	Gln	Gln	Pro	260	265	270	
Gly	Gln	Gly	Gln	Gln	Gly	His	Tyr	Leu	Ala	Ser	Gln	Gln	Gln	Pro	Gly	275	280	285	
Gln	Gly	Gln	Gln	Gly	His	Tyr	Pro	Ala	Ser	Gln	Gln	Gln	Pro	Gly	Gln	290	295	300	
Gly	Gln	Gln	Gly	His	Tyr	Pro	Ala	Ser	Gln	Gln	Gln	Pro	Gly	Gln	Gly	305	310	315	320
Gln	Gln	Gly	His	Tyr	Pro	Ala	Ser	Gln	Gln	Glu	Pro	Gly	Gln	Gly	Gln	325	330	335	
Gln	Gly	Gln	Ile	Pro	Ala	Ser	Gln	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	340	345	350	
Gly	His	Tyr	Pro	Ala	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	355	360	365	
His	Tyr	Pro	Thr	Ser	Leu	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Gln	Thr	Gly	370	375	380	
Gln	Pro	Gly	Gln	Lys	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Thr	Gly	Gln	385	390	395	400
Gly	Gln	Gln	Pro	Glu	Gln	Glu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	405	410	415	
Tyr	Tyr	Pro	Thr	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gln	Gly	420	425	430	
Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Leu	Gln	Gln	Pro	Gly	Gln	435	440	445	
Gly	Gln	Gln	Gly	His	Tyr	Pro	Ala	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	450	455	460	
Gln	Pro	Gly	Gln	Arg	Gln	Gln	Pro	Gly	Gln	Gly	Gln	His	Pro	Glu	Gln	465	470	475	480
Gly	Lys	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	485	490	495	
Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	500	505	510	
Tyr	Pro	Thr	Ser	Pro	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	515	520	525	

Gly Gln Gln Gly His Cys Pro Thr Ser Pro Gln Gln Ser Gly Gln Ala  
530 535 540

Gln Gln Pro Gly Gln Gly Gln Gln Ile Gly Gln Val Gln Gln Pro Gly  
545 550 555 560

Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Val Gln Gln Pro Gly Gln  
565 570 575

Gly Gln Gln Ser Gly Gln Gly Gln Gln Ser Gly Gln Gly His Gln Pro  
580 585 590

Gly Gln Gly Gln Gln Ser Gly Gln Glu Gln Gln Gly Tyr Asp Ser Pro  
595 600 605

Tyr His Val Ser Ala Glu Gln Gln Ala Ala Ser Pro Met Val Ala Lys  
610 615 620

Ala Gln Gln Pro Ala Thr Gln Leu Pro Thr Val Cys Arg Met Glu Gly  
625 630 635 640

Gly Asp Ala Leu Ser Ala Ser Gln  
645

<210> 8  
<211> 705  
<212> PRT  
<213> Wheat

<400> 8

Met Ala Lys Arg Leu Val Leu Phe Ala Thr Val Val Ile Thr Leu Val  
1 5 10 15

Ala Leu Thr Ala Ala Glu Gly Glu Ala Ser Arg Gln Leu Gln Cys Glu  
20 25 30

Arg Glu Leu Gln Glu Ser Ser Leu Glu Ala Cys Arg Gln Val Val Asp  
35 40 45

Gln Gln Leu Ala Gly Arg Leu Pro Trp Ser Thr Gly Leu Gln Met Arg  
50 55 60

Cys Cys Gln Gln Leu Arg Asp Val Ser Ala Lys Cys Arg Pro Val Ala  
65 70 75 80

Val Ser Gln Val Val Arg Gln Tyr Glu Gln Thr Val Val Pro Pro Lys  
85 90 95

Gly Gly Ser Phe Tyr Pro Gly Glu Thr Thr Pro Leu Gln Gln Leu Gln  
100 105 110

Gln Val Ile Phe Trp Gly Thr Ser Ser Gln Thr Val Gln Gly Tyr Tyr  
115 120 125

Pro	Ser	Val	Ser	Ser	Pro	Gln	Gln	Gly	Pro	Tyr	Tyr	Pro	Gly	Gln	Ala	130	135	140	
Ser	Pro	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Lys	Trp	Gln	Glu	145	150	155	160
Leu	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Leu	His	Gln	Ser	165	170	175	
Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Ser	Ser	Leu	Gln	Gln	Pro	Gly	180	185	190	
Gln	Gly	Gln	Gln	Ile	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	195	200	205	
Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Ile	Gly	Gln	Gly	Gln	Gln	Gly	210	215	220	
Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	His	Pro	Gly	Gln	Arg	Gln	Gln	Pro	Gly	225	230	235	240
Gln	Gly	Gln	Gln	Ile	Gly	Gln	Gly	Gln	Gln	Leu	Gly	Gln	Gly	Arg	Gln	245	250	255	
Ile	Gly	Gln	Gly	Gln	Gln	Ser	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	260	265	270	
Thr	Ser	Pro	Gln	Gln	Leu	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Trp	Gln	275	280	285	
Gln	Ser	Gly	Gln	Gly	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Gln	Gln	Gln	290	295	300	
Pro	Gly	Gln	Gly	Gln	Gln	Gly	Gln	Tyr	Pro	Ala	Ser	Gln	Gln	Gln	Pro	305	310	315	320
Gly	Gln	Gly	Gln	Gln	Gly	Gln	Tyr	Pro	Ala	Ser	Gln	Gln	Gln	Pro	Gly	325	330	335	
Gln	Gly	Gln	Gln	Gly	Gln	Tyr	Pro	Ala	Ser	Gln	Gln	Gln	Pro	Gly	Gln	340	345	350	
Gly	Gln	Gln	Gly	His	Tyr	Leu	Ala	Ser	Gln	Gln	Gln	Pro	Gly	Gln	Gly	355	360	365	
Gln	Gln	Arg	His	Tyr	Pro	Ala	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	370	375	380	
Gln	Gly	His	Tyr	Thr	Ala	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	385	390	395	400
Gly	His	Tyr	Pro	Ala	Ser	Leu	Gln	Gln	Val	Gly	Gln	Gly	Gln	Gln	Ile	405	410	415	
Gly	Gln	Leu	Gly	Gln	Arg	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Thr	Arg	420	425	430	

Gln Gly Gln Gln Leu Glu Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln  
 435 440 445  
 Thr Arg Gln Gly Gln Gln Leu Glu Gln Gly Gln Gln Pro Gly Gln Gly  
 450 455 460  
 Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gly Gln  
 465 470 475 480  
 Gln Pro Gly Gln Ser Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr  
 485 490 495  
 Ser Ser Ser Leu Gln Gln Pro Gly Gln Gly Leu Gln Gly His Tyr Pro  
 500 505 510  
 Ala Ser Leu Gln Gln Pro Gly Gln Gly His Pro Gly Gln Arg Gln Gln  
 515 520 525  
 Pro Gly Gln Gly Gln Gln Pro Glu Gln Gly Gln Gln Pro Gly Gln Gly  
 530 535 540  
 Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Pro Gly Gln Gly Lys  
 545 550 555 560  
 Gln Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln  
 565 570 575  
 Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly His Cys Pro  
 580 585 590  
 Thr Ser Pro Gln Gln Thr Gly Gln Ala Gln Gln Pro Gly Gln Gly Gln  
 595 600 605  
 Gln Ile Gly Gln Val Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr  
 610 615 620  
 Pro Ile Ser Leu Gln Gln Ser Gly Gln Gly Gln Gln Ser Gly Gln Gly  
 625 630 635 640  
 Gln Gln Ser Gly Gln Gly His Gln Leu Gly Gln Gly Gln Gln Ser Gly  
 645 650 655  
 Gln Glu Gln Gln Gly Tyr Asp Asn Pro Tyr His Val Asn Thr Glu Gln  
 660 665 670  
 Gln Thr Ala Ser Pro Lys Val Ala Lys Val Gln Gln Pro Ala Thr Gln  
 675 680 685  
 Leu Pro Ile Met Cys Arg Met Glu Gly Gly Asp Ala Leu Ser Ala Ser  
 690 695 700  
 Gln  
 705

<210> 9  
 <211> 602

<212> PRT  
<213> Wheat

<400> 9

Met	Ala	Lys	Arg	Leu	Val	Leu	Phe	Ala	Thr	Val	Val	Ile	Gly	Leu	Val	
1				5					10					15		
Ser	Leu	Thr	Val	Ala	Glu	Gly	Glu	Ala	Ser	Lys	Gln	Leu	Gln	Cys	Glu	
			20					25					30			
Arg	Glu	Leu	Gln	Glu	Ser	Ser	Leu	Glu	Ala	Cys	Arg	Leu	Val	Val	Asp	
			35				40					45				
Gln	Gln	Leu	Ala	Ser	Arg	Leu	Pro	Trp	Ser	Thr	Gly	Leu	Gln	Met	Arg	
	50					55					60					
Cys	Cys	Gln	Gln	Leu	Arg	Asp	Ile	Ser	Ala	Lys	Cys	Arg	Pro	Val	Ala	
65					70					75					80	
Leu	Ser	Gln	Val	Ala	Arg	Gln	Tyr	Gly	Gln	Thr	Ala	Val	Pro	Pro	Lys	
				85					90					95		
Gly	Gly	Pro	Phe	Tyr	His	Arg	Glu	Thr	Thr	Pro	Leu	Gln	Gln	Leu	Gln	
			100					105					110			
Gln	Gly	Ile	Phe	Gly	Gly	Thr	Ser	Ser	Gln	Thr	Val	Gln	Gly	Tyr	Tyr	
		115					120					125				
Pro	Ser	Val	Ile	Ser	Pro	Gln	Gln	Gly	Ser	Tyr	Tyr	Pro	Gly	Gln	Ala	
	130					135					140					
Ser	Pro	Gln	Gln	Pro	Gly	Lys	Trp	Gln	Glu	Leu	Gly	Gln	Gly	Gln	Gln	
145					150					155					160	
Trp	Tyr	Tyr	Pro	Thr	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Gly	
				165					170					175		
Tyr	Tyr	Arg	Thr	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Arg	Gln	Gln	Gly	Tyr	
			180					185					190			
Tyr	Arg	Thr	Ser	Leu	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Ile	Gly	Gln	
	195						200					205				
Trp	Gln	Gln	Gly	Tyr	Tyr	Pro	Thr	Ser	Pro	Gln	His	Pro	Gly	Gln	Gly	
	210					215					220					
Gln	Gln	Pro	Gly	Gln	Val	Gln	Lys	Ile	Gly	Gln	Gly	Gln	Gln	Pro	Glu	
225					230					235					240	
Lys	Gly	Gln	Gln	Leu	Gly	Gln	Glu	Gln	Gln	Ile	Gly	Gln	Gly	Gln	Gln	
				245				250						255		
Pro	Glu	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	Gln	Gln	Pro	Gly	Gln	Gly	
			260				265					270				

Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro Gly Gln Gly Gln  
 275 280 285  
 Gln Pro Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr  
 290 295 300  
 Pro Thr Ser Leu Gln Gln Pro Val Gln Gly Gln Gln Gly His Tyr Pro  
 305 310 315 320  
 Ala Ser Gln His Gln Pro Gly Gln Gly Gln Gln Gly His Gln Pro Ala  
 325 330 335  
 Ser Leu Gln Leu Ser Gly Gln Gly Gln Gln Gly His His Pro Ala Ser  
 340 345 350  
 Leu Gln Gln Pro Gly Gln Gly Lys Gln Thr Gly Gln Arg Glu Gln Arg  
 355 360 365  
 Gln Gln Pro Gly Gln Gly Gln Gln Thr Gly Gln Gly Gln Gln Pro Glu  
 370 375 380  
 Gln Glu Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Tyr  
 385 390 395 400  
 Leu Gln Gln Pro Gly Gln Gly Gln Gln Pro Glu Gln Trp Gln Gln Pro  
 405 410 415  
 Gly Gln Gly Gln Gln Gly His Tyr Pro Ala Ser Leu Gln Gln Ser Gly  
 420 425 430  
 Gln Gly Gln Gln Gly His Tyr Pro Ala Ser Leu Gln Gln Leu Gly Gln  
 435 440 445  
 Gly Gln Pro Gly Gln Thr Gln Gln Pro Gly Gln Gly Gln Gln Pro Glu  
 450 455 460  
 Gln Glu Glu Gln Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser  
 465 470 475 480  
 Pro Gln Gln Pro Gly Gln Gly Gln Gln Gly His Phe Pro Thr Ser Gly  
 485 490 495  
 Gln Ala Gln Gln Pro Gly Gln Gly Gln Gln Ile Gly Gln Ala Gln Gln  
 500 505 510  
 Leu Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Pro  
 515 520 525  
 Gly Gln Glu Gln Gln Ser Gly Gln Gly Gln Gln Leu Gly Gln Gly His  
 530 535 540  
 Gln Pro Gly Gln Gly Gln Gln Ser Gly Gln Glu Gln Gln Gly Tyr Asp  
 545 550 555 560  
 Ser Pro Tyr His Val Ser Val Glu Gln Gln Ala Ala Ser Pro Lys Val  
 565 570 575



Ala Lys Ala His His Pro Val Ala Gln Leu Pro Thr Met Cys Gln Met  
580 585 590

Glu Gly Gly Asp Ala Leu Ser Ala Ser Gln  
595 600

<210> 10

<211> 621

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus sequence derived from wheat sequences of Table 1

<400> 10

Met Ala Lys Arg Leu Val Leu Phe Ala Ala Val Val Val Ala Leu Val  
1 5 10 15

Ala Leu Thr Ala Glu Gly Glu Ala Ser Gln Leu Gln Cys Glu Arg Glu  
20 25 30

Leu Gln Glu Ser Leu Ala Cys Arg Gln Val Val Asp Gln Gln Leu Arg  
35 40 45

Asp Val Ser Pro Cys Arg Pro Val Val Ser Pro Val Ala Arg Gln Tyr  
50 55 60

Glu Gln Gln Val Val Pro Pro Lys Gly Gly Ser Phe Tyr Pro Gly Glu  
65 70 75 80

Thr Thr Pro Gln Gln Leu Gln Gln Ile Phe Trp Gly Ile Pro Ala Leu  
85 90 95

Leu Arg Tyr Tyr Pro Ser Val Thr Ser Pro Gln Gln Gly Ser Tyr Tyr  
100 105 110

Pro Gly Gln Ala Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly  
115 120 125

Gln Gly Gln Gln Gly Tyr Tyr Thr Ser Pro Gln Gln Pro Gly Gln Gln  
130 135 140

Gln Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln  
145 150 155 160

Gln Gln Gln Gly Gln Gln Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr  
165 170 175

Ser Gln Pro Gly Gln Gln Gln Pro Gln Gly Gln Gln Gln Gln Gln Gly  
180 185 190

Gln Gln Gly Gln Gly Gln Gln Gly Gln Gly Gln Gln Gly Gln Gln Pro  
195 200 205

Gly Gln Gln Gln Gly Gln Gly Gln Gln Gly Gln Gln Pro Gln Gln Ser  
 210 215 220  
 Gly Gln Gly Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gly  
 225 230 235 240  
 Gln Gln Gln Gln Gln Gln Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln  
 245 250 255  
 Gly Gln Gln Pro Gly Gln Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly  
 260 265 270  
 Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Pro  
 275 280 285  
 Ser Gln Gln Pro Gly Gln Gln Pro Gln Gln Gly Gln Gln Gln Pro Gln  
 290 295 300  
 Gly Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr Ser Pro  
 305 310 315 320  
 Gln Gln Ser Gly Gln Gly Gln Gly Tyr Tyr Thr Ser Pro Gln Gln Ser  
 325 330 335  
 Gly Gln Gln Gln Pro Gln Gln Gln Gly Gln Gln Gly Gln Gln Pro Gly  
 340 345 350  
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 355 360 365  
 Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly Gln Gln Gln Pro  
 370 375 380  
 Gly Gln Trp Gln Gln Pro Gly Gln Gly Gln Pro Gly Tyr Tyr Pro Thr  
 385 390 395 400  
 Ser Pro Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser  
 405 410 415  
 Pro Gln Gln Pro Gly Gln Gly Gln Gln Pro Gln Gln Gln Pro Gln Gly  
 420 425 430  
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 435 440 445  
 Gly Gln Gln Pro Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro  
 450 455 460  
 Gln Gln Ser Gly Gln Gly Gln Gln Gly Gln Gly Tyr Tyr Thr Gly Gln  
 465 470 475 480  
 Gln Gly Tyr Tyr Pro Thr Ser Gln Gln Pro Gly Gln Gly Gln Gln Pro  
 485 490 495  
 Gly Gln Gln Gln Gln Gly Gln Tyr Tyr Pro Ser Pro Ser Gly Gln Gly  
 500 505 510

Gln Pro Gly Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Gly Gln  
 515 520 525  
 Gly Gln Gln Pro Gly Gln Gln Gly Gln Trp Leu Gln Pro Gly Gln Gly  
 530 535 540  
 Gln Gln Gly Tyr Tyr Pro Thr Ser Leu Gln Gln Gly Gln Gly Gln Gln  
 545 550 555 560  
 Ser Gly Gln Gly Gln Gln Gly Tyr Tyr Pro Gln Gln Ser Gly Gln Gln  
 565 570 575  
 Gln Gly Tyr Asp Ser Pro Tyr His Val Ser Ala Glu Gln Ala Ala Ser  
 580 585 590  
 Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro Ala Met  
 595 600 605  
 Cys Arg Leu Glu Gly Gly Asp Ala Leu Ser Ala Ser Gln  
 610 615 620

<210> 11  
 <211> 18  
 <212> PRT  
 <213> Wheat

<400> 11

Leu Lys Val Ala Lys Ala Gln Gln Leu Ala Ala Gln Leu Pro Ala Met  
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Cys Arg

<210> 12  
 <211> 2073  
 <212> DNA  
 <213> Guinea pig

<220>  
 <221> CDS  
 <222> (1)..(2073)  
 <223> transglutaminase enzyme

<400> 12

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aat ggc cgc gac cac cgc acg gcc gac ctg tgc cgg gag agg ctg gtg	96
ttg cgg cgg ggc cag ccc ttc tgg ctg acg ctg cac ttt gag ggc cgt	144
ggc tac gag gct ggt gtg gac act ctc acc ttc aac gct gtg acc ggc	192
cca gat ccc agt gag gag gcc ggg act atg gcc cgg ttc tca ctg tcc	240

agt gct gtc gag ggg ggc acc tgg tca gcc tca gca gtg gac cag cag	288
gac agc act gtc tgc ctg ctg ctc agc acc cca gct gat gcc ccc att	336
ggc ctg tat cgc ctc agc ctg gag gcc tcc act ggt tac cag ggc tcc	384
agc ttc gta ctg ggc cac ttc atc ctg ctc tac aat cct cgg tgc cca	432
gcg gat gct gtc tat atg gac tca gac caa gag cgg cag gag tat gtg	480
ctc acc caa cag ggc ttc atc tac cag ggc tgc gcc aag ttc atc aat	528
ggc ata cct tgg aac ttc ggg cag ttt gaa gat ggg atc ctg gat att	576
tgc ctg atg ctc ttg gac acc aac ccc aag ttc ctg aag aat gct ggc	624
caa gac tgc tgc cgc cgc agc aga cct gtc tac gtg ggc cgg gtg gtg	672
agc gcc atg gtc aac tgc aat gac gat cag ggc gtg ctt cag gga cgc	720
tgg gac aac aac tac agt gat ggt gtc agc ccc atg tcc tgg atc ggc	768
agc gtg gac atc ctg cgg cgc tgg aaa gac tat ggg tgc cag cgc gtc	816
aag tac ggc cag tgc tgg gtc ttc gct gct gtg gcc tgc aca gtg ctg	864
cgg tgc ctt ggc atc ccc acc cga gtc gtg acc aac ttt aac tca gcc	912
cac gac cag aac agc aac ctg ctc atc gag tac ttc cga aac gag tct	960
ggg gag atc gag ggg aac aag agc gag atg atc tgg aac ttc cac tgc	1008
tgg gtg gag tgc tgg atg acc agg ccg gac ctg gag cct ggg tac gag	1056
ggg tgg cag gcc ctg gac ccc aca ccc cag gag aag agt gaa ggg aca	1104
tac tgc tgt ggc cca gtt ccg gtt cga gcc atc aag gag ggc cac ctg	1152
aac gtc aag tat gat gca cct ttc gtg ttt gct gag gtc aat gct gac	1200
gtg gtg aac tgg atc cgg cag aaa gat ggg tcc ctg cgc aag tcc atc	1248
aac cat ttg gtt gtg ggg ctg aag atc agt act aag agt gtg ggc cgc	1296
gat gag cga gag gac atc acc cac acc tac aag tac cca gag gga tct	1344
gaa gag gag cgg gaa gct ttt gtt agg gcc aac cac cta aat aaa ctg	1392
gcc aca aag gaa gag gct cag gag gaa acg gga gtg gcc atg cgg atc	1440
cgt gtg ggc cag aac atg act atg ggc agt gac ttt gac atc ttt gcc	1488
tac atc acc aat ggc act gct gag agc cac gaa tgc caa ctc ctg ctc	1536
tgt gca cgc atc gtc agc tac aat gga gtc ctg ggg ccc gtg tgc agc	1584
acc aac gac ctg ctc aac ctg acc ctg gat ccc ttc tgc gag aac agc	1632

atc ccc ctg cac atc ctc tat gag aag tac ggt gac tac ctg act gag	1680
tcc aac ctc atc aag gtg cga ggc ctc ctt atc gag cca gca gcc aac	1728
agc tat gta ttg gcc gag agg gac att tac ctg gag aat cca gaa atc	1776
aag atc cgg gtc ttg ggg gag ccc aag cag aac cgc aag ctg att gct	1824
gag gtg tct ctg aag aat ccg ctc cct gtg ccg ctg ctg ggt tgt atc	1872
ttc acc gtg gaa gga gct ggc ctg acc aag gac cag aag tgc gtg gag	1920
gtc cca gac ccc gtg gaa gca ggg gag caa gcg aag gta cgg gtg gac	1968
ctg ctg ccg acg gag gtg ggc ctc cac aag ctg gtg gtg aac ttc gag	2016
tgc gac aag ctg aag gcc gtg aag ggc tat cgg aac gtc atc atc ggc	2064
ccc gcc taa	2073

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 <212> DNA  
 <213> Rice

<400> 13

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ggtgagttat tgtaaagttc tacaaagcta atttaaaagt tattgcatta acttatttca	180
tattacaaac aagagtgtca atggaacaat gaaaaccata tgacatacta taattttggt	240
tttattattg aaattatata attcaaagag aataaatcca catagccgta aagttctaca	300
tgtggtgcat taccaaaata tatatagctt acaaaacatg acaagcttag ttgaaaaat	360
tgcaatcctt atcacattga cacataaagt gagtgatgag tcataatatt attttctttg	420
ctacccatca tgtatatatg atagccacaa agttactttg atgatgatat caaagaacat	480
ttttaggtgc acctaacaga atatccaaat aatatgactc acttagatca taatagagca	540
tcaagtaaaa ctaacactct aaagcaaccg atgggaaagc atctataaat agacaagcac	600
aatgaaaatc ctcatcatcc ttcaccacaa ttcaaataat atagttgaag catagtagta	660
gaatccaaca acaatgaaga tcattttcgt atttgctctc cttgctattg ttgcatgcaa	720
tgccctctgcg tctaga	736

<210> 14

<211> 32  
 <212> DNA  
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 <223> PLT217 forward primer for amplification of wheat gene Ax1  
  
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 <212> DNA  
 <213> Artificial Sequence  
  
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 <223> PLT219 reverse primer for amplification of wheat gene Ax1  
  
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 <213> Artificial Sequence  
  
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 <223> PLT228 forward primer for amplification of wheat gene Ax2  
  
 <400> 16  
  
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 <210> 17  
 <211> 31  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PLT230 reverse primer for amplification of wheat gene Ax2  
  
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 <210> 18  
 <211> 29  
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<223> PLT185 forward primer for amplification of wheat gene Bx7  
 <400> 18  
 tctagaatgg cactactcga catggttag 29  
  
 <210> 19  
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 <213> Artificial Sequence  
  
 <220>  
 <223> PLT186 reverse primer for amplification of wheat gene Bx7  
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 caccatgcaa gctgcagaga g 21  
  
 <210> 20  
 <211> 28  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> PLT562 forward primer for amplification of wheat gene Bx17  
 <400> 20  
 tctagatatg gctaagcggg tagtcctc 28  
  
 <210> 21  
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 <212> DNA  
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 <223> PLT563 reverse primer for amplification of wheat gene Bx17  
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 gatattctgcg agctgcagag agttc 25  
  
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 <211> 28  
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 <220>  
 <223> PLT272 forward primer for amplification of wheat gene By9  
 <400> 22  
 cccgggcaca gataaatgtt gtgattca 28

<210> 23  
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 <223> PLT273 reverse primer for amplification of wheat gene By9  
  
 <400> 23  
  
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 <210> 24  
 <211> 27  
 <212> DNA  
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 <220>  
 <223> G1B5 forward primer for amplification of wheat gene Dx5  
  
 <400> 24  
  
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 <210> 25  
 <211> 26  
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 <213> Artificial Sequence  
  
 <220>  
 <223> PLT189 reverse primer for amplification of wheat gene Dx5  
  
 <400> 25  
  
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 <210> 26  
 <211> 30  
 <212> DNA  
 <213> Artificial Sequence  
  
 <220>  
 <223> G2B3 forward primer for amplification of wheat gene Dy10  
  
 <400> 26  
  
 aagctttttca ttttgcatta ttattgggtt 30  
  
 <210> 27  
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<213> Artificial Sequence

<220>

<223> G2B5 reverse primer for amplification of wheat gene Dy10

<400> 27

accttatcca tgcaagctac cttccac

27

<210> 28

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<223> PLT482 forward primer for amplification of wheat gene Dy12

<400> 28

gaattcgagc atttgcaaaa gcaatggcta ac

32

<210> 29

<211> 34

<212> DNA

<213> Artificial Sequence

<220>

<223> PLT483 reverse primer for amplification of wheat gene Dy12

<400> 29

tctagagctt gtgagaaagg ggtaatcatc agtg

34

<210> 30

<211> 31

<212> DNA

<213> Artificial Sequence

<220>

<223> PLT488 forward primer for amplification of wheat gene HMW2

<400> 30

gaattcagct ttgagtggcc gtagatttgc a

31

<210> 31

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> PLT489 reverse primer for amplification of wheat gene HMW2

<400> 31

ggatccatat aggatctgtc gcattcatgg ctg

33

<210> 32

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> PLT571 forward primer for amplification of wheat gene Glula

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<210> 33

<211> 33

<212> DNA

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<223> PLT572 reverse primer for amplification of wheat gene Glula

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33

<210> 34

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> PLT237 forward primer for amplification of guinea pig gene  
transglutaminase

<400> 34

tctagaatgg cagaggatct gatcctggag

30

<210> 35

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> PLT238 reverse primer for amplification of guinea pig gene  
transglutaminase

<400> 35

gagctcttag gcggggccga tgatgacg

28

<210> 36  
<211> 9  
<212> PRT  
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<220>  
<223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Gln at position 6 may be mutated)

<400> 36

Pro Phe Pro Gln Pro Gln Leu Pro Tyr  
1 5

<210> 37  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Gln at position 4 may be mutated)

<400> 37

Pro Gln Pro Gln Leu Pro Tyr Pro Gln  
1 5

<210> 38  
<211> 9  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Gln at position 6 may be mutated)

<400> 38

Pro Tyr Pro Gln Pro Gln Leu Pro Tyr  
1 5

<210> 39  
<211> 13  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Gln at position 10 may be mutated)

<400> 39

Leu Gln Leu Gln Pro Phe Pro Gln Pro Gln Leu Pro Tyr  
 1 5 10

<210> 40  
 <211> 13  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Tyr and Ser at positions 5 and 8 may be mutated)

<400> 40

Gln Gln Gly Tyr Tyr Pro Thr Ser Pro Gln Gln Ser Gly  
 1 5 10

<210> 41  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Tyr and Ser at positions 5 and 8 may be mutated)

<400> 41

Gln Gln Gly Tyr Tyr Pro Thr Ser  
 1 5

<210> 42  
 <211> 8  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Gln at positions 4, 5 and 7 may be mutated)

<400> 42

Pro Phe Ser Gln Gln Gln Gln Gln  
 1 5

<210> 43  
 <211> 12  
 <212> PRT  
 <213> Artificial Sequence

<220>

<223> Sequence derived from wheat storage proteins wherein the allergenic amino acid is eliminated (Gln at positions 4 and 6 may be mutated)

<400> 43

Gln Ser Glu Gln Ser Gln Gln Pro Phe Gln Pro Gln  
1 5 10

<210> 44

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Gln at position 4 may be mutated

<220>

<221> misc\_feature

<222> (2)..(2)

<223> Xaa can be any naturally occurring amino acid

<400> 44

Gln Xaa Pro Gln Gln Pro Gln Gln Phe  
1 5